PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Case study from Kenya

Abridged Version

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Primary Health Care Systems (PRIMASYS)

Case study from Kenya

Overview of primary health care (PHC) in Kenya

Kenya has an estimated population of 45 million, 75% in rural areas. Roughly 46% of the country's population live below the poverty line. The country's gross domestic product (GDP) per capita is US$ 1377. With a Gini coefficient estimated at 0.445, nearly half of Kenyans (46%) live below the poverty line.[1] In Kenya, 75% of the population have received some formal education – 52% with primary education and 23% with secondary education and above. The main source of employment is agriculture at 32.0%, while 23.7% have wage employment.[2]

According to the Kenya Health Policy (2014–2030), the 10 leading causes of death in Kenya are HIV-related ailments (29%), perinatal conditions (9%), lower respiratory tract infections (8%), tuberculosis (6%), diarrhoeal diseases (6%), malaria (5%), cerebrovascular diseases (3%), ischaemic heart disease (3%), road traffic accidents (2%) and violence (2%). The country's health profile is summarized in Table 1.[3]

The country has made remarkable progress in improving key health indicators over recent years. The government's health goal is attainment of universal health care coverage for key services, including maternal, neonatal and child health services.[4] These priorities are reflected in the country's budget for 2016/2017. Public primary health facilities have been reported to be pro-poor, particularly across rural locations. Neonatal mortality rates are higher among women aged under 20 years (20 per 1000 live births) than for those aged above 20 years. The risk of losing a child during birth is lower among educated women (11 per 1000 live births, compared to 15 per 1000 for women with no education). The rate for delivery by a skilled attendant is lower in rural areas (94%, compared to 98% in urban areas). Immunization coverage stands at over 70%, with higher coverage among urban residents (78%, compared to 73% for rural locations).[5]

Table 1. Summary of country health profile for Kenya

Indicator/parameter	Value	Source
Life expectancy at birth	62 years	World Bank, 2015
Under-5 mortality rate	52/1000	KDHS, 2014
Maternal mortality rate	362 per 100 000	KDHS, 2014
Immunization coverage under 1 year (includes rotavirus, no pneumococcal)	74.9%	KDHS, 2014
Total health expenditure as proportion of GDP	5.7%	World Bank, 2015
% total public sector expenditure on PHC	3.5%	Ministry of Finance, 2016
Per capita public sector expenditure on PHC	20 Kenya shillings	Ministry of Finance, 2016
Public expenditure on health as proportion of total health expenditure	61.3%	World Bank, 2015
Out-of-pocket payment as proportion of total health expenditure	26.1%	World Bank, 2015
Voluntary health insurance as proportion of total health expenditure	11.7%	KHHEUS, 2013
Proportion of households experiencing catastrophic health expenditure	12.7%	KHHEUS, 2013

Sources:
World Bank: Kenya country data. Washington (DC): World Bank; 2015.
KDHS: Kenya Demographic and Health Survey 2014. Nairobi, Kenya: National Bureau of Statistics; 2014.
Ministry of Finance: Kenya National Budget 2016/2017. Nairobi, Kenya: Ministry of Finance; 2016.
KHHEUS: Kenya Household Health Expenditure and Utilization Survey. Nairobi, Kenya: Ministry of Health; 2013.

1 The World Bank, 2015 (http://data.worldbank.org/country/kenya)

2 (a) Human development report 2015: work for human development. New York: United Nations Development Programme; 2015. (b) Kenya country data. Washington (DC): World Bank; 2015 (http.data.worldbank.org/country/Kenya). (c) Kenya Health Policy (2014–2030). Nairobi, Kenya: Ministry of Health; 2014.

3 Kenya Health Policy (2014–2030). Nairobi, Kenya: Ministry of Health; 2014.

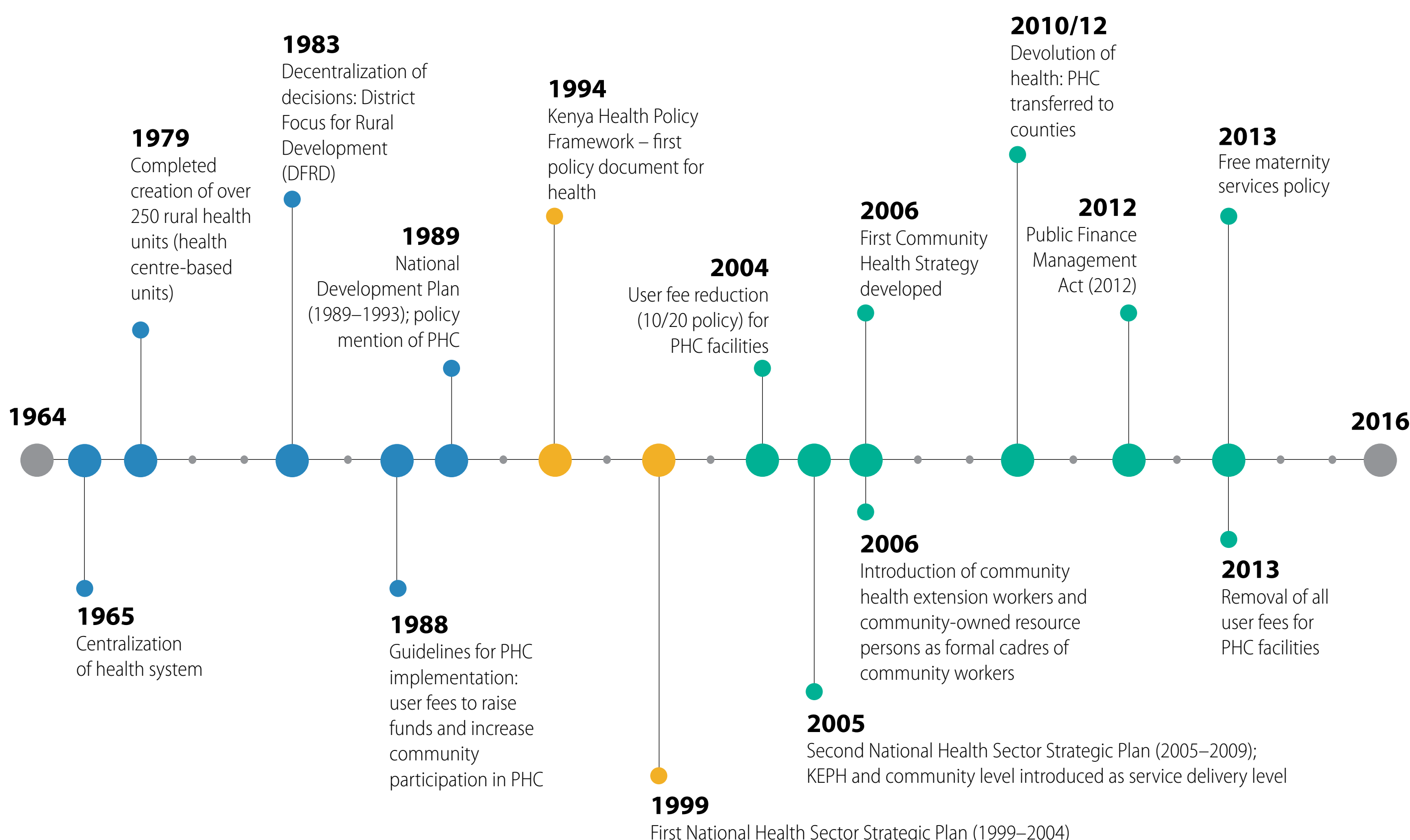
4 Kenya Household Health Expenditure and Utilization Survey. Nairobi, Kenya: Ministry of Health; 2013.

5 Kenya Demographic and Health Survey 2014. Nairobi, Kenya: National Bureau of Statistics; 2014.

Timeline

Efforts to develop a comprehensive PHC policy started in the 1970s, but it was not until the late 1980s that actionable strategies emerged, emphasizing decentralization, intersectoral collaboration and community participation in health. Following two decades of policy changes and learning, the Kenya Essential Package for Health (KEPH) concept was adopted in 2005. KEPH has facilitated the development of actionable strategies towards PHC. It outlines high-impact, cost-efficient interventions for different age cohorts, and defines the service package to be provided at each level. It remains the primary strategy through which PHC services are delivered in Kenya to date. Figure 1 summarizes the main milestones in the evolution of PHC in Kenya.

Figure 1. Timeline of key milestones in evolution of PHC in Kenya post-independence



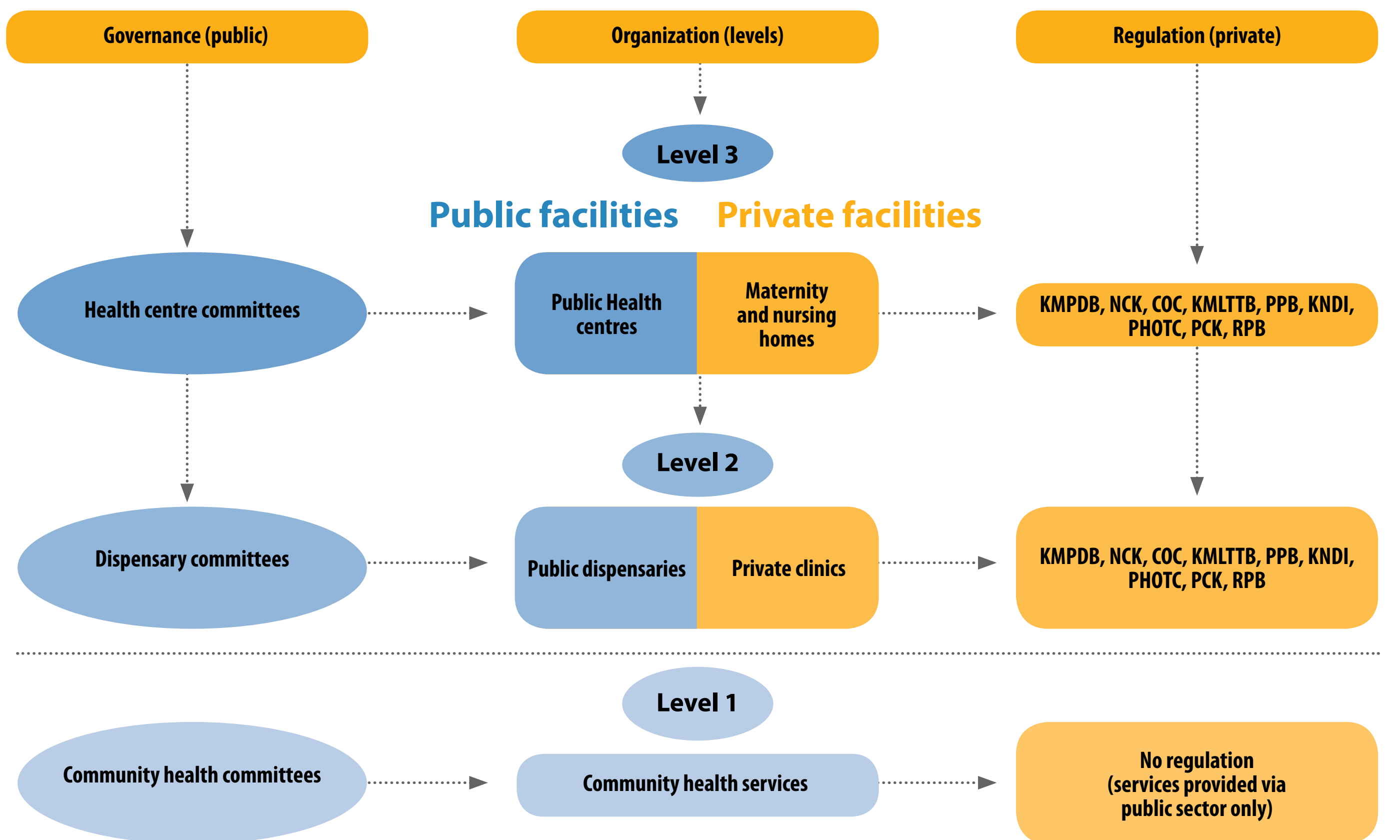
Governance of PHC

The Kenyan health system defines six levels of the hierarchy, as follows: level 1, community services; level 2, dispensaries and clinics; level 3, health centres and maternity and nursing homes; level 4, sub-county hospitals and medium-sized private hospitals; level 5, county referral hospitals and large private hospitals; and level 6, national referral hospitals and large private teaching hospitals. PHC services are primarily provided at levels 1 to 3 (Figure 2). Public PHC facilities are governed by health facility committees, which include the facility in-charge and community representatives. For private PHC facilities, government oversight is provided through regulation, implemented through eight regulatory agencies (Box 1).

Box 1. Health regulatory agencies in Kenya

1. Clinical Officers Council (COC)
2. Kenya Medical Laboratory Technicians and Technologists Board (KMLTTB)
3. Kenya Medical Practitioners and Dentists Board (KMPDB)
4. Public Health Officers and Technicians Council (PHOTC)
5. Nursing Council of Kenya (NCK)
6. Kenya Nutritionists and Dieticians Institute (KNDI)
7. Pharmacy and Poisons Board (PPB)
8. Physiotherapists Council of Kenya (PCK)
9. Radiation Protection Board (RPB)

Figure 2. Structure and governance of PHC facilities and community units

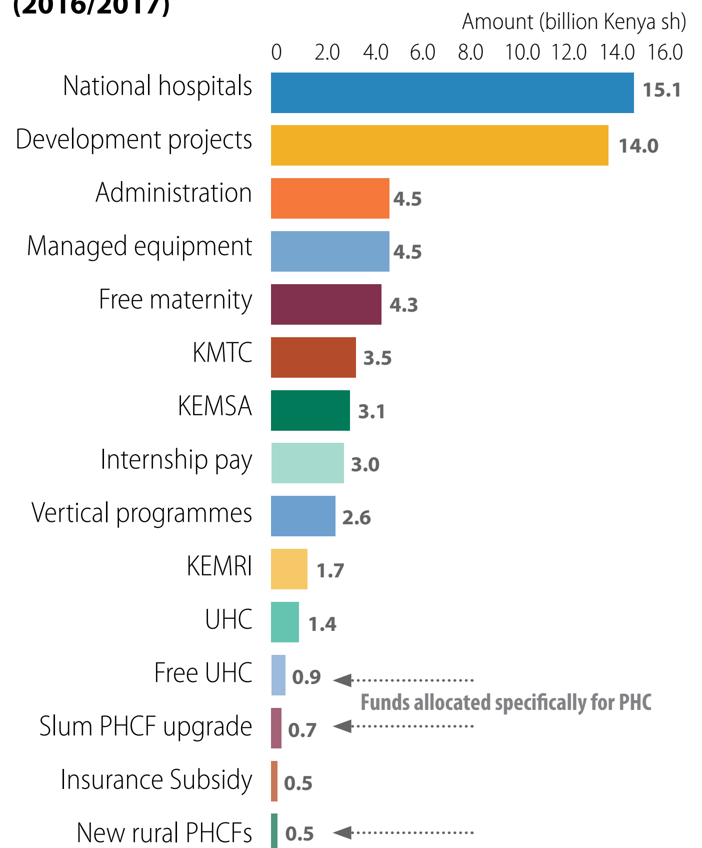


Financing PHC in Kenya

Kenya's health budget for 2016/2017 is 60.3 billion Kenya shillings (US$ 603 million), taking 4% of the total budget. However, additional funds are available for health from the 298 billion Kenya shillings (US$ 2.98 billion) allocated to county governments for their activities. Based on previous county budgets, roughly one fifth of the county allocations go towards health services delivery.

The largest proportion of the 60.3 billion Kenya shillings goes to curative services (roughly 40%). The only budgetary allocations specifically for PHC are (a) 900 million Kenya shillings (US$ 9 million) allocated for free PHC (to be sent to counties to compensate for user fee removal for primary facilities); (b) 500 million Kenya shillings (US$ 5 million) for establishing PHC facilities in poor or hard-to-reach areas; and (c) 700 million Kenya shillings (US$ 7 million) for upgrading clinics in slums (Figure 3). However, PHC will also benefit from the 4.3 billion Kenya shillings (US$ 43 million) set aside for free maternity services, which will be channelled via the National Hospital Insurance Fund (NHIF) to reimburse facilities for deliveries and perinatal services.

Figure 3. Ministry of health budgetary allocation (2016/2017)



Key: KMTC = Kenya Medical Training College; KEMSA = Kenya Medical Supplies Authority; KEMRI = Kenya Medical Research Institute; UHC = universal health coverage; PHCF = primary health care facility.

At county level, PHC facilities receive money through various mechanisms (Figure 4). Empanelled public and private PHC facilities also get funds from the NHIF.

Development partners provide support through funding of programmes or contributing to funding pools to support various activities. Some funds are channelled through nongovernmental organizations (NGOs) and community-based organizations, which makes it difficult to quantify the exact amount of money targeted towards PHC.

Human resources

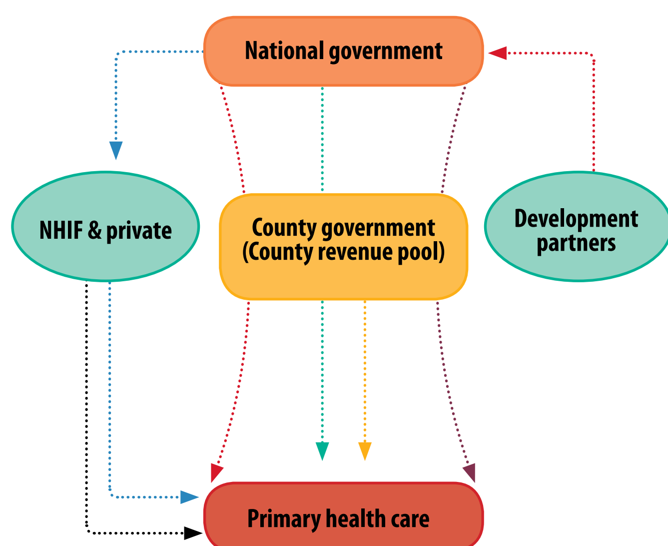
KEPH outlines staffing requirements for PHC (Figure 5). PHC facilities are mainly staffed by nurses and clinical officers, with a small percentage of medical officers (Table 2). Poor staff distribution characterizes the sector. In addition, staff complain of poor remuneration, resulting in high attrition rates. Frequent health worker strikes have characterized the sector since devolution, signifying dissatisfaction with counties' handling of health matters.

Table 2. Numbers of key cadres of staff in PHC facilities in Kenya

Staff cadres	Community	Primary care
Medical doctors and specialists	–	56
Dentists and technologists	–	8
Clinical officers (including specialists)	–	397
Nurses (all cadres)	24	6 090
Public health officers and technicians	289	2 185
Pharmacists and technologists	–	76
Laboratory technologists and technicians	–	676
Nutritionists	–	106
Health records and information technicians	–	110
Trained community health workers	12 949	3 096
Social health workers	300	16
Community health extension workers	483	512

– No data available.

Figure 4. Funding streams for PHC in Kenya



Main funding from national government budget for health (covers staff salaries, commodities and operations)

Funding earmarked for PHC facilities to fill gap from user fee removal; partly supported by partner funding

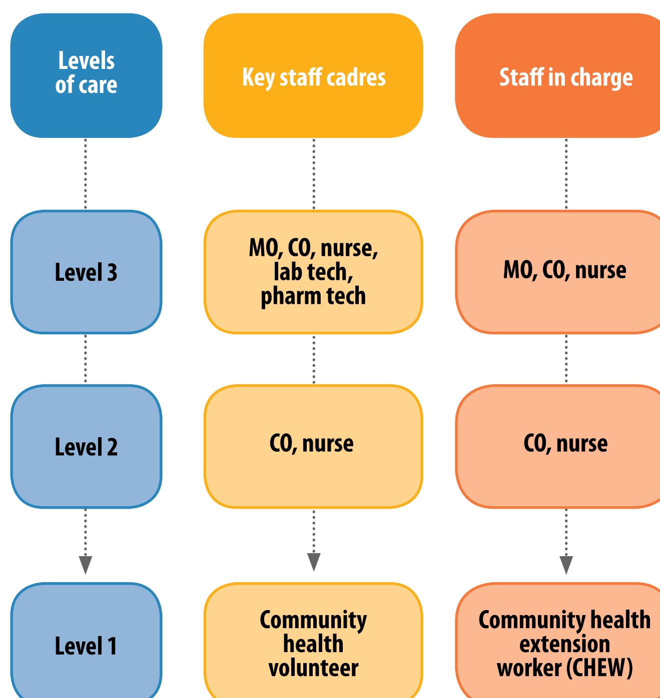
Funding from NHIF/private insurance (as reimbursements to facilities for services rendered to empanelled members)

Funds from national government, through NHIF, for free maternity services (yet to be completely rolled out)

County allocations for PHC outside national government budget support (varies from county to county)

Direct support to facilities by partners (must now be channelled through the county)

Figure 5. Staffing of public PHC facilities and community units



Key: CO = clinical officer; MO = medical officer; lab tech = laboratory technologist/technician; pharm tech = pharmacy technician.

Planning and implementation: PHC service delivery policies and guidelines

Key policies governing the delivery of PHC services include the Kenya Health Policy (2014–2030), the Health Sector Strategic and Investment Framework (2013–2017), Human Resources for Health Norms and Standards, the Kenya Quality Model for Health (KQMH), the Patient Service Charter (PSC), and Guidelines for Referral of Patients. These are summarized in Table 3.

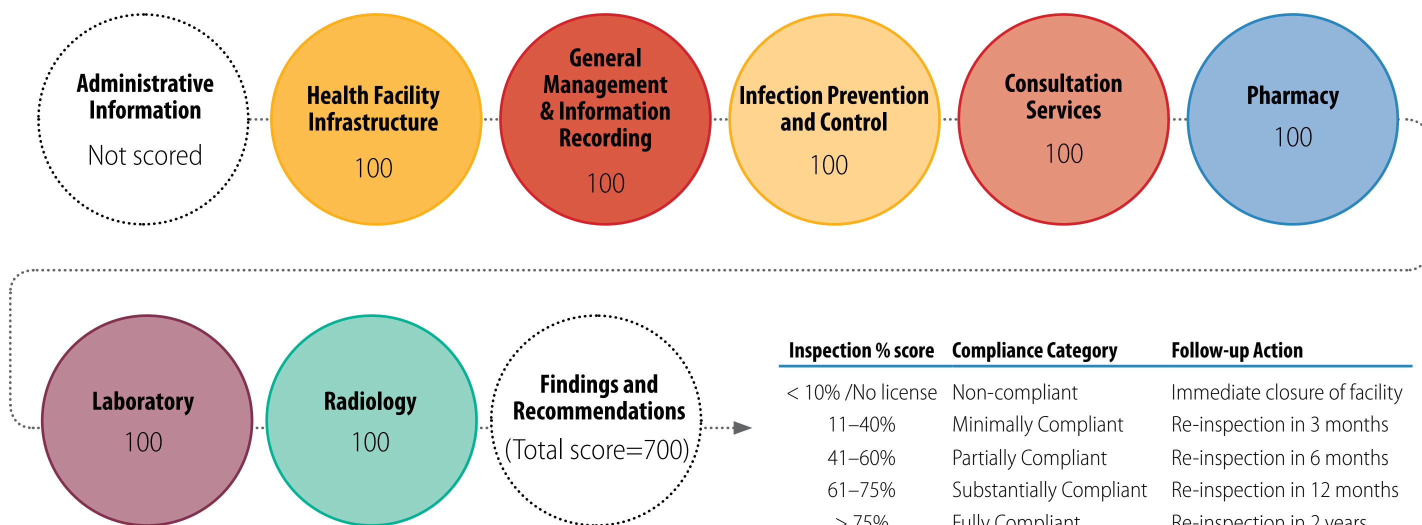
The PSC guidelines require that all facilities display charters showing services offered, obligations of the patients, charges and waiting times. A 2014 Ministry of Health assessment of 66 PHC facilities showed that only a third had implemented the PSC, with only 14% having departmental charters.

The Kenya Medical Supplies Authority (KEMSA) is the public agency for medicines, supplying commodities based on orders received from counties. At county level, the county pharmacist is responsible for pooling orders from individual health care facilities, aggregating these, and making orders directly to KEMSA. According to a key informant, KEMSA presently supplies over 4400 PHC facilities across the country. The commodities and supplies are distributed directly to the facilities using a combination of in-house KEMSA vehicles and outsourced transporters. Reports continue indicating frequent stock-outs for key commodities and supplies at primary facilities. The 2014 assessment of PHC facilities, for instance, found that only 48% and 27% of surveyed health centres and dispensaries respectively had 16 essential tracer drugs in stock at the time of the survey.

Table 3. Policy and guidelines governing PHC services in Kenya

Measures	Summary	Specific issues of relevance
Constitution of Kenya, 2010	Gives every Kenyan a right to the highest attainable standard of health, and says no person should be denied access to emergency treatment (Section 43).	Health services devolved to counties. However, policy development and standards remain a national function.
Health Bill, 2016	Establishes a health system that encompasses the public and private sectors and the national and county governments. It harmonizes fragmented legislation governing the health sector.	The Bill defines roles of county and national governments, and allocates PHC functions fully to county governments.
Kenya Vision 2030	Kenya's development blueprint to turn the country into a globally competitive middle-income country by 2030. Specifies economic, social and political pillars that will drive the country towards realizing the goal.	Two approaches identified as key in pushing the agenda of an efficient health system: devolution of funds and management to counties, and shifting the bias of national health from curative to PHC.
Second Medium-Term Plan (MTP), 2013–2017	The second MTP identifies key policy actions, reforms, and programmes that the Jubilee Government will implement between 2013 and 2017 in line with its pre-election pledges, key Vision 2030 priorities and the Constitution.	The MTP emphasizes devolution, and plans for scale-up of PHC interventions, including maternal, neonatal and child health, strengthening staff capacity, strengthened linkages between communities and facilities, and strengthened community awareness of health rights, nutrition and sanitation.
Kenya Health Policy, 2014–2030	The main aims of the policy are to realize the priorities and flagship projects set out in Vision 2030, and to move towards making the right to health for all Kenyans a reality.	The Kenya Health Policy identifies key areas of focus for the policy period. These include reducing the burden of communicable and noncommunicable diseases through, among other strategies, strengthening PHC.
Kenya Health Sector Strategic and Investment Plan III, 2013–2017	Guides allocation of resources in the Medium-Term Expenditure Framework, and in turn informs annual planning. The plan provides the overall framework for sector guidance in the medium term. It is complemented by a series of sector documents.	The plan classifies health care facilities into levels (from level 1 – community, to level 6 – national referral). PHC facilities fall in levels 2 and 3 (dispensaries and health centres), complemented by the community level. It defines services to be provided at each level.
Ministry of Health norms and standards	Defines the staffing norms and standards for facilities at each level of the health system. Meant to be the minimum standards to assure high-quality services.	PHC facility staffing requirements outlined. These include clinical staff, pharmaceutical staff, nursing staff and support staff requirements.
Patient charters	Policy documents aimed at improving client-centredness across the health systems through entrenching social accountability.	Outlines the rights and responsibilities of patients, and what PHC facilities must guarantee. Emphasizes the need for collecting and responding to client concerns.
Guidelines for Referral of Patients	The referral guidelines outline how needs of patients should be met beyond the capacity and capabilities of the respective health care levels.	The guidelines define the scope of referral services to include movement of clients, specimens, services and experts, and client parameters (movement of client information to higher levels for expert opinion). PHC facilities to focus on preventive and basic curative services.
Kenya Quality Model for Health (KQMH)	The KQMH is the overall framework guiding quality management and continuous quality improvement activities within the Kenyan health care system.	The KQMH defines health care standards to be met by facilities offering various services. It proposes adoption of continuous quality improvement activities through entrenching approaches such as 5S and the Kaizen model.

Figure 6. Joint Health Inspections Checklist and post-inspection follow-up actions



Inspection % score	Compliance Category	Follow-up Action
< 10% /No license	Non-compliant	Immediate closure of facility
11–40%	Minimally Compliant	Re-inspection in 3 months
41–60%	Partially Compliant	Re-inspection in 6 months
61–75%	Substantially Compliant	Re-inspection in 12 months
> 75%	Fully Compliant	Re-inspection in 2 years

Regulatory processes

Historically, PHC facilities were regulated by semi-autonomous regulatory agencies, but in a fragmented manner, with no clear enforcement mechanisms. This changed in 2016 through an official government gazette, which directed that facilities be henceforth inspected using a uniform Joint Health Inspections Checklist, which combines minimum standards across departments (Figure 6). After inspection, an objective overall percentage score is given for each facility, and facilities are put in one of five compliance categories based on the scores. Follow-up action is then determined by the compliance category (Figure 6). The risk categorization helps focus more effort on inspecting and supporting poor performers to improve patient safety.

Price regulation does not exist in Kenya. However, the Kenya Medical Practitioners and Dentists Board (KMPDB) published in 2016 guidelines for fees to be charged for different services.

Beyond meeting minimum standards, PHC providers must engage in continuous improvement activities. The KQMH, Kenya's national quality management framework, emphasizes evidence-based medicine, continuous quality improvement strategies, and patient inclusion in decisions. Continuous quality improvement for practitioners is enforced through mandatory continuous professional development (CPD) programmes, which link to licensure. Those in active practice must attain a minimum number of CPD points before getting their licences renewed.

The Kenyan health care sector does not have specific legislation on consumer protection. However, the country has a law (the Consumer Protection Act of 2012) that outlines consumer rights across sectors, including consumer redress and compensation.

Monitoring and information systems

The cloud-based District Health Information System 2 (DHIS-2) is the national health information system for Kenya. However, there exist other systems that collect different types of complementary information (some linked to DHIS-2, others fully independent). Table 4 gives an overview of the main health information systems operating at different levels of the health system, and the information collected.

Way forward and policy considerations

Kenya's PHC system is presently undergoing a major transformation, resulting from the constitutionally mandated devolution of health services delivery. The country is in the process of implementing relatively new and untested mechanisms, ranging from policy and regulatory interventions to health care financing models. However, more work is required to understand the best mechanisms for supporting PHC, and the impacts on population health indices. Table 5 gives a brief summary of the key areas to be addressed in the different PHC components moving forward.

Table 4. Overview of health data flows

Level	Reporting activity	Reporting tool
Community	Field staff collect information on HIV/AIDS and tuberculosis and send to programmes at Ministry of Health	Community-Based HIV Programme Activity Reporting (COPBAR) and TIBU (integrated with DHIS-2)
	CHEWs collect information on community maternal referrals and submit to facilities	Ministry of Health registry
PHC facilities	Facility in-charge reports on maternal and child health at the facility and community and submits summaries to the sub-county facility	Ministry of Health registries and summaries
Sub-county	Sub-county records officer enters maternal and child health summaries in DHIS-2	DHIS-2
	Registration of facilities and community units by sub-county records officer	Master facility list
County	Approval of facilities and community health units by the county health records information officer	Master facility list (integrated with DHIS2)
	County health records information officer reviews county's data	DHIS-2
National	Licensing and accreditation of health workforce	Regulatory human resource information system
	Management of health workforce payrolls and pay station	Integrated personnel payroll data, government health resource information system, and iHRIS Manage
	Hosting and management of national health data	DHIS-2 and respective Ministry of Health departments

Table 5. Strategic areas to address in strengthening PHC in Kenya under devolution

#	Component	Areas for intervention/policy solutions
1	Governance of PHC	PHC facilities are formally governed by facility committees, which include community representatives (voluntary roles). However, past studies have shown the committees to be only active where user fees are collected, as they help plan and monitor the use of the funds. With user fees recently abolished for PHC, what new roles can the committees be given to encourage them to participate in facility governance?
2	Financing PHC services	PHC facilities were previously funded directly through the Health Sector Services Fund to bypass the inefficiencies of funding through the districts (i.e. funds would be diverted from PHC to curative services). However, the recent enactment of the Public Finance Management Act abolished direct facility funding, creating the risk of PHC facilities being underfunded as before. What mechanisms and strategies can be put in place to ensure this does not happen as it did in the past?
3	Human resources for health (HRH) for PHC	HRH management has been devolved, raising concerns over how well the counties can manage such a delicate workforce, and ensure equitable distribution and appropriate retention strategies. Most counties are struggling with problems of industrial action, as health care workers express dissatisfaction and demand that HRH be recentralized. What strategies can be employed to strengthen county capacity to manage HRH? And what checks and balances can be added to ensure counties adhere to the national norms and standards for the different staff mix and expertise required to deliver PHC services?
4	PHC service delivery	Counties that previously housed provincial referral hospitals are now overwhelmed, as they use their funds to finance these large facilities that cater for the needs of large numbers, mostly from other counties. They incur high tertiary care expenses, thereby diverting resources from PHC. What interventions can help strengthen PHC services in such counties? Most counties are reporting massive stock-outs for key commodities, particularly medicines. This is because counties now have to determine their needs and place orders, despite challenges faced, including insufficient capacity and funding challenges. What strategies can be deployed to promote commodity security under the newly devolved system?
5	Regulating PHC services	Kenya recently adopted a new regulatory enforcement mechanism, the Joint Health Inspections system, whereby facilities are inspected using objective uniform criteria, and where sanctions deployed for non-compliers vary depending on performance levels. However, with devolution of health services and concomitant reduction of funds at national government level, it has become apparent that regulatory functions must, somehow, be shared between the national and county governments. What would be the most effective mechanism for sharing this function, without compromising regulatory standards?
6	Monitoring and managing PHC information	Kenya has faced challenges harmonizing health information across sectors (public and private) and information components (e.g. master facility number, licensure status), human resource information and data on health indicators. This results in poor coordination and suboptimal planning. What strategies can be devised to ensure that the previous challenges around data fragmentation are not replicated after devolution?

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